

REMARKS

Claims 1-10 are pending in this application, of which claims 1 and 10 have been amended. No new claims have been added.

Claims 1-3, 7, 8 and 10 stand rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,069,141 to Ohara et al. (hereafter "Ohara et al.")

Applicant respectfully traverses this rejection.

Ohara et al. discloses a freight system comprising a conveyor adapted to be driven along a monorail track 16. A frictional drive wheel 28 of the conveyor engages the upper side of the track and various embodiments of reactive force creating means are positioned to engage the underside of the track 16 to create improved frictional forces during ascendancy. All of these embodiments employ the weight of the unit to create the reactional force and in all embodiments there are positioned a pair of spaced apart guide rollers 79 that engage the underside of the track. In some embodiments, these guides rollers are resiliently biased by either separate springs or by making the guide rollers 79 themselves resilient. In some embodiments there is provided an intermediate fixed guide roller 78 to limit the degree of relative movement between the conveyor and the track 16. In one embodiment, the guide rollers 79 are suspended by a Y shaped lever that itself carries the load transmitted by the conveyor.

The Examiner has urged that FIG. 2 shows an auxiliary rail that is formed under said main rail, as claimed.

Applicant respectfully disagrees. There is no disclosure in Ohara et al. of a second auxiliary rail in addition to single rail 16, which is comprised of an I beam 21.

In addition, it is clearly understood from FIG. 5 of Ohara et al. that the conveyer system of Ohara et al. has no auxiliary rail in the slope region of the single rail 16. Thus, the transport system as set forth in each of claims 1 and 10 is not the same as the conveyer system of Ohara et al.

According to the transport system having the auxiliary rail of the present invention, the following remarkable advantages can be achieved, as described at page 3, lines 6-19 of the original description.

Since the auxiliary wheel elastically contacts only the auxiliary rail formed in the slope region of the main rail, and the main rail and the auxiliary rail are caught between the drive wheel and the auxiliary wheel, a large contact pressure (gripping force) can be obtained between the drive wheel and the main rail. Thereby, it is possible to efficiently and smoothly move the vehicle upward and downward in the slope region of the rail without preventing slippage of the drive wheel. On the other hand, in a horizontal region of the main rail, since the auxiliary wheel does not contact the rail, it is possible to obtain the running of the drive wheel on the main rail under a small friction resistance without excessively pressing the drive wheel against the main rail. That is, a high gripping force is obtained in the slope region of the main rail, and a moderate grip force is obtained in the horizontal region of the main rail where the auxiliary rail is not formed. Consequently, the object can be efficiently transported with energy conservation.

Accordingly, claims 1 and 10 have been amended to more clearly recite this distinction, and the 35 U.S.C. §102(b) rejection should be withdrawn.

Claim 9 stands rejected under 35 U.S.C. §103(a) as unpatentable over Ohara et al.

Applicant respectfully traverses this rejection.

As noted above, Ohara et al. fail to disclose the auxiliary rail recited in claim 1, from which claim 9 depends.

Thus, the 35 U.S.C. §103(a) rejection should be withdrawn.

Claim 4 stands rejected under 35 U.S.C. §103(a) as unpatentable over Ohara et al. in view of JP8-127337A to Junji (hereafter "Junji").

Applicant respectfully traverses this rejection.

Junji discloses a self-propelled vehicle running rail 11 constituted of a lower horizontal track 21, down facing circular arc track 22, tilt track 23, up facing circular arc track 24 and an upper horizontal track 25 successively connected in a lengthwise direction of the rail. In the upward of the self-propelled vehicle running rail 11, an endless chain 43 is arranged so that its lower side moving route is placed in parallel to the self-propelled vehicle running rail 11. A driven pawl 36 is provided in a self-propelled vehicle 12. In the chain 43, a drive pawl 45 is provided so that it can be engaged with the driven pawl 36. The chain 43 is driven at a speed equal to speed of the self-propelled vehicle 12 running on the lower/upper horizontal tracks 21, 25 by a motor 44. The motor 44 is controlled in a manner wherein its driving is started, when the self-propelled vehicle 12 approaches one of the lower/upper horizontal tracks 21, 25, and stopped when passing through the other.

As shown in FIG. 1, "lower horizontal track 21" and "upper horizontal track 25" are actually comprised of a single track with a "tilt track 23," a "down facing circular arc track 22" and an "up facing circular arc track 24" connecting them together to form a single track. Thus, Junji, like Ohara et al., fail to disclose a second auxiliary rail, as recited in claim 1 of the instant application, from which claim 4 depends.

Thus, the 35 U.S.C. §103(a) rejection should be withdrawn.

Claims 5-6 stand rejected under 35 U.S.C. §103(a) as unpatentable over Ohara et al. in view of U.S. Patent 3,064,585 to Ewing, Jr. (hereafter "Ewing, Jr.").

Applicant respectfully traverses this rejection.

Ewing, Jr. has been cited for disclosing driven wheels, that are rotatable on opposite sides of a web of a rail but, like Ohara et al., fails to disclose the auxiliary rail recited in claim 1, from which claims 5-6 depend.

Thus, the 35 U.S.C. §103(a) rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 1-10, as amended, are in condition for allowance, which action, at an early date, is requested.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

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Respectfully submitted,

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